

Amendments to Specification

Please replace the Abstract of the Disclosure with the following paragraph:

Methods, apparatuses and systems directed to a flow-based, traffic-classification-aware data collection and reporting system ~~that. —Embodiments of the present invention~~ combine ~~the~~ flow-based data collection technologies with enhanced traffic classification functionality to allow for analysis and reporting into aspects of network operations that prior art systems cannot provide. ~~Embodiments of the present invention~~ provide enhanced views into the operation of computer network infrastructures to facilitate monitoring, administration, compliance and other tasks associated with networks. ~~In one embodiment, when~~ When a traffic flow terminates, a traffic monitoring device emits a flow data record (FDR) containing measurements variables and other attributes for an individual flow. A data collector gathers the flow data records and enters them into a database. A network management application can then query the database with selected commands to derive reports characterizing operation of the network suitable to diagnose problems or view conditions associated with the network.

Please replace paragraph [0011] with the following amended paragraph:

[0011] U.S. patent application Ser. No. 09/198,051, now abandoned, in the name of Guy Riddle, entitled "Method for Automatically Determining a Traffic Policy in a Packet Communications Network;"

Please replace paragraph [0012] with the following amended paragraph:

[0012] U.S. patent application Ser. No. 09/206,772, now U.S. Patent No. 6,456,630, in the name of Robert L. Packer, Brett D. Galloway and Ted Thi, entitled "Method for Data Rate Control for Heterogeneous or Peer Internetworking;"

Please replace paragraph [0013] with the following amended paragraph:

[0013] U.S. patent application Ser. No. 10/039,992, now U.S. Patent No. 7,032,072, in the name of Michael J. Quinn and Mary L. Laier, entitled "Method and Apparatus for Fast Lookup of Related Classification Entities in a Tree-Ordered Classification Hierarchy;"

Please replace paragraph [0014] with the following amended paragraph:

[0014] U.S. patent application Ser. No. 10/108,085, currently pending, in the name of Wei-Lung Lai, Jon Eric Okholm, and Michael J. Quinn, entitled "Output Scheduling Data Structure Facilitating Hierarchical Network Resource Allocation Scheme;"

Please replace paragraph [0016] with the following amended paragraph:

[0016] U.S. patent application Ser. No. 10/236,149, currently pending, in the name of Brett Galloway and George Powers, entitled "Classification Data Structure enabling Multi-Dimensional Network Traffic Classification and Control Schemes;"

Please replace paragraph [0017] with the following amended paragraph:

[0017] U.S. patent application Ser. No. 10/453,345, currently pending, in the name of Scott Hankins, Michael R. Morford, and Michael J. Quinn, entitled "Flow-Based Packet Capture;" and

Please replace paragraph [0018] with the following amended paragraph:

[0018] U.S. patent application Ser. No. 10/611,573, currently pending, in the name of Roopesh Varier, David Jacobson, and Guy Riddle, entitled "Network Traffic Synchronization Mechanism."

Please replace paragraph [0063] with the following amended paragraph:

[0063] If the data packet does not signify a new data flow, packet processor 131 retrieves the control block object, and associates the packet with the control block object (218). If elements of the data packet represent a change to the traffic type associated with the data flow (220), packet processor 131 passes the flow specification object to traffic classification engine 137 to identify a traffic class corresponding to the flow (214). Methods for determining changes to data flows are also well known in the art. For example, an email may include an attached digital image file. Accordingly, while the initial packets in the data flow may include simple text data, subsequent packets may contain image data. Packet processor 131, in one embodiment, is operative to detect such changes in the characteristics of the data flow by examining data encapsulated in upper layers of each packet, such as the detection of multipurpose internet mail extensions (MIME) ~~MIME~~ types, etc.